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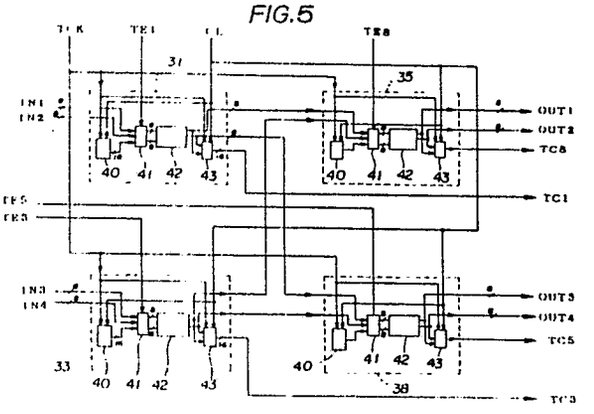
(54) Semiconductor integrated circuit with a test function.

(57) A semiconductor integrated circuit comprises a plurality of integrated circuit blocks (31 - 39) constituted on a wafer (30), the integrated circuit blocks being arbitrarily electrically connected to each other so as to form a system. Each of the integrated circuit blocks comprises a logical operating circuit (42) for carrying out a logical operation; a pseudo-random pattern generating circuit (40) for generating a pseudo-random pattern signal; switching circuit (41) for selecting either an input signal to be processed by the logical operating circuit or the pseudo-random pattern signal in response to a test enabling signal (TE1 - TE9) which is independently applied to each integrated circuit block so that each integrated circuit block is independently set to either a test mode or a normal mode and for outputting the selected signal to the logical operating circuit; and a data compressing circuit (43) for compressing an output data signal of the logical operating circuit.

FIG.5



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EUROPEAN SEARCH REPORT

Application Number

EP 87 40 2872

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	ELECTRONIC DESIGN, vol. 33, no. 16, 11th July 1985, pages 63-64, Schiphol, NL; M. BEEDIE: "Testing, fault tolerance emerge as top issues at wafer-scale conference" * Page 63, column 1, last paragraph - column 2; page 64, column 2, lines 39-46 *	1,3,4	G 01 R 31/28
A	* Page 63, column 3, lines 28-40 *	6	
Y	AUTOTESTCON'80-1980 AUTOTEST CONFERENCE, Washington, 2nd-5th November 1980, pages 135-139, IEEE, New York, US; D.K. BHAVSAR; "Self-testing supercells" * Page 138, paragraph "Polynomial division (POLYDIV) Scheme" *	1,3,4	
A	* Page 138, point "FSR" *	7	
P,X	PROCEEDINGS OF THE IEEE 1987 CUSTOM INTEGRATED CIRCUITS CONFERENCE, Portland, 4th-7th May 1987, pages 207-210, IEEE, New York, US; K. YAMASHITA et al.: "A wafer-scale 170,000-gate FFT processor with built-in test circuits" * Whole article *	1-7	TECHNICAL FIELDS SEARCHED (Int. Cl.4): G 06 F 11/26, G 01 R 31/28, G 06 F 11/20

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	12-12-1989	SARASUA GARCIA L.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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